

Research on the Relationship between Mental Health and Psychological Capital of College Students in the New Era from the Perspective of Positive Psychology

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Abstract. Targeting college students in the new era, this paper introduces the variable of psychological capital from the perspective of positive psychology and discusses the relationship between psychological capital and mental health based on the present situation of college students in Nanjing. Meanwhile, it puts forward some countermeasures and suggestions for college students to improve their mental health from the perspective of positive psychology. The results are as follows. Firstly, the psychological capital and mental health of college students have reached middle and high levels; Secondly, college students' psychological capital has a significant positive impact on their overall mental health, and the three factors in psychological capital, such as confidence, courage, tenacity and tolerance can effectively predict mental health.

Keywords: Psychological Capital; Mental Health; College Students in the New Era; Positive Psychology.

1. Introduction

As a generation born in the new era of China's rapid development, the post-00s enjoy better living conditions and more diversified ways of communication, which shows new group characteristics under this background. They are keen on socializing and trends, with personalized value pursuit and online socializing as their remarkable features (Wang, 2018). The rise of the Internet enables post-00s abundant developed channels to contact external information resources, while social networking and interest groups make it easier to find organizations that fit themselves. As for life issues, post-00s are more independent, precocious, and open-minded. They also like and yearn for more freedom, so they want to live a fuller life. In addition to their studies, they are willing to pay more time and energy to develop their hobbies, prove themselves, make their own decisions, and foster a strong self-awareness, thus showing more diversified and individual thoughts (Yin, 2020). As the generation born after 2000 enters the university, there will be new mental health problems up against the new environment.

Compared with traditional psychology which focuses on peoples' negative aspects and the treatment of mental diseases, positive psychology advocates the positive orientation of studying psychology, which was first put forward by American psychologist Martin Seligman, whose main concept is to transform happiness frequently mentioned in daily life into a discipline supported by methods and theories (Cheng, 2022). Its research content is human health, optimism, happiness, etc., which aims at transmitting positive thoughts and advocating positive and correct value orientation (Yang, 2023). Psychological capital is a concept in this category based on positive psychology and positive organizational behavior. It is a positive psychological state of individuals in their growth and development, including four dimensions such as self-efficacy, resilience, hope, and optimism (Wang, 2015).

College students' psychological capital is the innovation and expansion of psychological capital research, which can be measured (Qiu, 2019). Scholars have different views on the compilation of its measurement scale. For example, Zhang Kuo (2010) recognized that psychological capital consists of four dimensions, including self-efficacy, hope, optimism, and resilience, with the scale compiled on this basis. Xiao Wen and Li Linying (2010) believed that college students' psychological capital should include self-efficacy, optimism, resilience, gratitude, interest, and a sense of responsibility.

Ke Jianglin et al. held that college students' psychological capital has interpersonal psychological capital and task-oriented psychological capital as first-level dimensions, including four second-level dimensions each. Specifically speaking, task-oriented psychological capital is subsumed under confidence and courage, enterprising, optimism and hope, and tenacity, while interpersonal psychological capital includes tolerance and forgiveness, respect and courtesy, modesty and calmness, gratitude and dedication (Li, 2020).

Taking college students in Nanjing as the object, this study discusses the relationship between psychological capital and mental health based on their psychological capital and health status. Besides, the influence of various factors related to psychological capital on mental health is further analyzed, with corresponding countermeasures and suggestions brought forth.

2. Research Methods

2.1 Subjects of the Study

In this study, 209 undergraduate students were selected from 4 universities in Nanjing by random sampling, and 204 questionnaires were effectively recovered, with 97.6% as the effective recovery rate.

2.2 Research Tools

2.2.1 Psychological Capital Scale

Supporting Ke Jianglin's views on college students' psychological capital, this study adopts his psychological capital scale as one of the research tools to investigate the current situation of college students' psychological capital. The questionnaire consists of task-oriented psychological capital and interpersonal psychological capital, each of which contains four dimensions, with a total of 34 questions adopting the Likert five-point scoring method in eight dimensions. Moreover, the internal consistency coefficient of the questionnaire is 0.931, the combined reliability of each dimension is above 0.8, and the convergence validity is above 0.5 by AMOS confirmatory factor analysis, which shows that all dimensions have good combined reliability and convergence validity.

2.2.2 Mental Health Scale

In this study, the questionnaire on college students' mental health made by Teng Lin et al. (2012) was used to research the present situation of their mental health, which includes self-awareness, learning adaptability, interpersonal communication, love concept, development creativity, and employment concept. There are 36 questions in total, each of which adopts Likert five-point scoring method. The internal consistency coefficient of the questionnaire is 0.905, the convergence validity of each dimension is above 0.5, and the combined reliability is above 0.8 by AMOS confirmatory factor analysis.

2.2.3 Data Statistics Tools

After distributing and collecting questionnaires, the reliability, descriptive statistics, correlation, and regression analysis were carried out by SPSS 24.0, and the confirmatory factor analysis was carried out by AMOS 24.0.

3. Research Results

3.1 Overall Situation Analysis

3.1.1 Overall Mental Health Status

It can be seen from Table 1 that the average overall mental health is 3.30 and the average scores of all dimensions are above the median value of 2.5, reaching the middle and high levels. Besides, 3.45 is the highest score for the employment concept, while 2.94 is the lowest for the interpersonal

communication. On the six dimensions, the average scores of respondents from high to low are employment concept, love concept, development creativity, self-awareness, learning adaptability, and interpersonal communication. The low learning adaptability may result from the constant changes in the learning environment, which is also a necessary process from high school to university. The lowest score in interpersonal communication indicates that with the expansion of social scope in universities, interpersonal problems have become more prominent (Wang, 2020). Meanwhile, the higher score of the employment concept may be due to the increasing employment pressure, and the number of employment lectures at schools has also raised, which has influenced the employment concept of college students (Qiu, 2015).

Table 1. Overall Situation Analysis of College Students' Mental Health

Dimension	Mean value	Standard deviation
Overall mental health	3.30	0.45
Self-awareness	3.32	0.88
Learning adaptability	3.23	0.92
Interpersonal communication	2.94	1.01
Development creativity	3.38	0.77
Love concept	3.43	0.89
Employment concept	3.45	0.74

3.1.2 Overall State of Psychological Capital

According to Table 2, the overall average of college students' psychological capital is 3.34 and the average scores of all dimensions are above the median value of 2.5, which is in the middle and high level. Interpersonal psychological capital is higher than task-oriented psychological capital, with 3.76 as the highest score being respect and courtesy and 3.03 as the lowest being confidence and courage. On the eight dimensions of psychological capital, the average scores of respondents from high to low are respect and courtesy, modesty and calmness, gratitude and dedication, tolerance and forgiveness, tenacity, optimism and hope, enterprising, confidence and courage.

Table 2. Overall Situation Analysis of College Students' Psychological Capital

Dimension	Mean value	Standard deviation
Overall psychological capital	3.34	0.60
Task-oriented psychological capital	3.10	0.75
Interpersonal psychological capital	3.57	0.63
Enterprising	3.04	0.89
Tenacity	3.21	0.93
Tolerance and forgiveness	3.35	0.78
Gratitude and dedication	3.51	0.93
Modesty and calmness	3.66	0.82
Respect and courtesy	3.76	0.79
Confidence and courage	3.03	0.89
Optimism and hope	3.12	0.89

3.2 Correlation Analysis

Testing the correlation between psychological capital and mental health, this study not only analyzes the overall psychological capital and mental health, but also researches the correlation between overall mental health with various factors of psychological capital. According to Table 3 about the correlation coefficients of the main variables studied in this paper, there is a significant correlation between each variable, and the correlation coefficient r between each variable is greater than 0. Therefore, it can be comprehensively explained that each variable in this analysis has a significant positive correlation.

Table 3. Correlation Matrix (N=204)

Dimension	Overall mental health	Overall psychological capital	Task-oriented psychological capital	Interpersonal psychological capital	Enterprising	Tenacity	Tolerance and forgiveness	Gratitude and dedication	Modesty and calmness	Respect and courtesy	Confidence and courage	Optimism and hope
Overall mental health	1											
Overall psychological capital	.575**	1										
Task-oriented psychological capital	.547**	.888**	1									
Interpersonal psychological capital	.440**	.838**	.493**	1								
Enterprising	.460**	.766**	.885**	.400**	1							
Tenacity	.552**	.788**	.834**	.501**	.556**	1						
Tolerance and forgiveness	.379**	.691**	.513**	.699**	.419**	.493**	1					
Gratitude and dedication	.323**	.661**	.411**	.761**	.329**	.411**	.315**	1				
Modesty and calmness	.303**	.555**	.245**	.759**	.198**	.268**	.361**	.411*	1			
Respect and courtesy	.347**	.663**	.343**	.847**	.279**	.364**	.514**	.537*	.569**	1		
confidence and courage	.460**	.766**	.885**	.400**	1.00**	.556**	.419**	.329*	.198**	.279*	1	
Optimism and hope	.360**	.659**	.756**	.351**	.430**	.671**	.387**	.308*	.155*	.224*	.430**	1

3.3 Regression Analysis

3.3.1 Overall Psychological Capital—Regression Analysis of Overall Mental Health

Table 4. Regression Analysis of Total Psychological Capital-Total Mental Health (N=204)

Variable type	Coefficient	Standard deviation	t	R ²	Adjusted R ²
Overall psychological capital	0.575***	0.043	9.998	0.331	0.328

Note: *** p < 0.01, ** p < 0.05, * p < 0.1

Regression analysis of independent variables and dependent variables, i.e., overall psychological capital and overall mental health, shows that the regression coefficient between overall psychological capital and overall mental health is significant ($r=0.575, p < 0.01$), the standard deviation is 0.043, t is 9.998, 0.331, and the adjusted one is 0.328, which proves that the explanation rate of psychological

capital to mental health is 32.8% that is reliable in actual situations. There are 67.2% dependent variables whose changes in mental health are affected by other factors.

3.3.2 Various Factors of Psychological Capital—Multiple Stepwise Regression Analysis of Mental Health

This study focuses on exploring the relationship between overall psychological capital and overall mental health of college students, and the influence of various factors related to psychological capital on mental health. To find out the influence of psychological capital and its factors on college students' mental health, this study regresses the overall mental health to task-oriented psychological capital and interpersonal psychological capital, and then regresses the overall mental health to various factors of psychological capital. Meanwhile, rather than the four dimensions of optimism and hope, enterprising, respect and courtesy, modesty and calmness, gratitude and dedication, it's confidence and courage, tenacity, and tolerance and forgiveness that entered the equation, which showed that these three dimensions could predict and explain college students' mental health, with 0.457 as the coefficient of tenacity, which explained mental health the highest degree.

Table 5. Various Factors of Psychological Capital—Multiple Stepwise Regression Analysis of Mental Health

Variable type	Coefficient	Standard deviation	t	R ²	Adjusted R ²
Constant	2.236	0.105	21.211	0.435	0.427
Tenacity	0.457***	0.029	6.593		
Confidence and courage	0.221**	0.029	3.405		
Tolerance and forgiveness	0.104*	0.033	2.377		

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

4. Discussions and Recommendations

4.1 Discussion on the Relationship between Psychological Capital and Mental Health of College Students

The results show that college students' psychological capital has a significant positive impact on their overall mental health, indicating that the higher the psychological capital, the better their mental health. Task-oriented psychological capital and interpersonal psychological capital both positively affect their overall mental health, and task-oriented psychological capital has more significant. It proves that the higher the psychological capital score, the higher the mental health, which is consistent with the results of the domestic research.

In addition, college students' psychological capital can predict and explain their mental health to a certain extent. Psychological capital can explain 32.8% of mental health. Tenacity, confidence and courage, tolerance and forgiveness have a linear regression relationship with college students' mental health. Tenacity first enters the regression equation, which can explain 45.7% of mental health. Confidence and courage as well as tolerance and forgiveness also entered the regression equation, explaining 22.1% and 10.4% for mental health respectively. These three psychological capital dimensions can comprehensively predict 42.7% of mental health, which indicates that they are the most important factors affecting mental health, among which tenacity is the strongest, confidence and courage are the second, and tolerance and forgiveness are the last.

College students with higher resilience show a higher ability to resist pressure and frustration under certain stress conditions, which can protect themselves from the external environment or persist in difficult situations. College students with confidence and courage will not be disturbed by external

evaluation and are brave to do what they want. Inclusive college students can always accept their shortcomings and fears, and achieve psychological balance quickly when things happen, instead of falling into endless self-doubt and suspicion of others. Therefore, when carrying out mental health education in colleges and universities, we should pay attention to the role of resilience in college students. At the same time, their confidence and inclusiveness of broad vision should be cultivated.

4.2 Countermeasures and Suggestions

Up against the increasingly fierce competition in contemporary society, talents to a certain extent compete with their individual ability, attitude, and psychological capital composed of confidence and courage, optimism, enterprising, tenacity, tolerance and forgiveness, respect and courtesy, modesty and calmness, gratitude and dedication. Whoever can continuously acquire, develop, and effectively utilize his psychological capital will be in an advantageous and dominant position (Huang, 2011). Although the survey shows that the psychological capital of college students is in the middle and high level, we can't ignore some students who lack psychological capital, especially those with low task-oriented psychological capital. To help universities open up and accumulate psychological capital, alleviate mental health problems, and improve mental health, this study puts forward countermeasures and suggestions from two aspects of universities and individuals.

4.2.1 From the Perspective of Universities

4.2.1.1 Creating a Harmonious Psychological Environment on Campus

An equal relationship between teachers and students in universities should be constructed (Zhang, 2019). At present, there are many problems in the relationship between teachers and students, such as zero interference with each other in class, insufficient communication, a shortage of mutual understanding, and so on. Teachers are the second leader of students except for parents, whose influence on students is far-reaching. University teachers should not only change their educational concepts and treat college students as equals, but also learn from each other, care for students in their lives, and be friends.

Psychological counseling in schools should play a role. Every university has its psychological adjustment institution, which will hire special psychological teachers. However, many schools make psychological counseling and adjustment a mere formality. In addition to being good at discovering students' problems in different periods and implementing special lectures or other activities, psychological counseling teachers should mobilize their positive psychology, maintain good relations with students, and make them willing to tell and seek solutions confronted with big problems, instead of keeping them in mind.

4.2.1.2 Playing the Main Role of Classroom Teaching

Specialized courses. The results show that college students' confidence and courage score the lowest in the eight sub-dimensions, while professional courses teach professional knowledge and skills to improve students' cognitive ability. Learning them will affect students' confidence in future work, and better mastery can make students competent for jobs faster and better.

Psychological education courses. Psychological education courses should change the role of only imparting traditional psychological health knowledge and adding positive psychology in the past, and transform from solving students' psychological problems to emphasizing their positive personality traits and developing potential (Yin, 2009).

Career planning courses. According to the research, the psychological capital of enterprising is only 0.01 higher than the last ranking of confidence and courage, which shows that college students are not clear in life goals and plans, and lack corresponding motivation. Schools should actively carry out career planning courses and lectures, so that students can understand the professional talents needed by contemporary society to clarify important abilities, instead of only learning theoretical knowledge out of touch with society. Meanwhile, students' broad vision should be nourished in many fields.

4.2.1.3 Providing Different Strategies for Various Individual Characteristics

Apart from the differences mentioned above, other scholars have found that different family types such as single or two parents and family incomes also enable various mental health and psychological capital (Dou, 2020). Therefore, students with different background conditions and characteristics should be “adapted to respective conditions” and given personalized attention and support. In this positive psychological environment, it is beneficial to enhance college students’ confidence in solving problems and develop their psychological capital.

4.2.2 From the Perspective of Individuals

4.2.2.1 Knowing Yourself Correctly

In the survey, the scores of college students’ self-awareness are average, which shows that they still lack self-awareness. Self-awareness can be divided into two aspects. On the one hand, self-characterization, that is, a comprehensive understanding of their own character, specialties, hobbies, and family background. On the other hand, self-reflection, which refers to run through every bit of life, so as not to be self-righteous. College students can find a variety of reference systems by enriching their life experience, expanding their communication space, and engaging in various activities, so as to know themselves from multiple aspects through these reference systems. In addition, you can know yourself through others’ evaluations (Song, 2016). As the saying goes, “bystanders see clearly”. We should listen to and analyze others’ evaluations with an open mind, rather than lose self-judgment.

4.2.2.2 Enhancing Tenacity and Compression Resistance

This study proves that tenacity has a significant impact on mental health. Facts have manifested that people with higher tenacity will adapt to life more calmly in many ways. For example, they can effectively deal with a tense and stressful life and adapt to various challenges; recover from disappointment, predicament, and trauma, instead of being destroyed; learn to adjust goals and solve problems from setbacks; be comfortable with others and recognize themselves without invading others (Huang, 2011). Given enhancing college students’ tenacity, this paper puts forward four suggestions.

Firstly, face up to failure. Every failure is often temporary, although it may feel unacceptable in the situation at that time. However, it is more effective to look at it from a long-term perspective and sum up the lessons than to immerse yourself in the pain of failure.

Secondly, locate different goals at different stages. People are always in the course of development, and no goal or direction is unchangeable. When you find that the original goal cannot be achieved due to various factors, don’t stay in place but find a new direction to move on.

Thirdly, find your own source of security. Everyone has special feelings for unique people or affairs. When encountering difficulties, seeking help from people who can bring you a sense of security is not a sign of weakness. The union between people can stimulate their potential to some extent.

Fourthly, pay attention to the tenacity accumulation. Tenacity includes resilience, perseverance, and anti-fragility. Studies have proved that independence, optimism, emotional management, and problem-solving are all important wealth for enhancing tenacity (Zhao, 2022). In life, we can focus on the cultivation and accumulation of these characteristics.

4.2.2.3 Cultivating a Tolerant and Forgiving Temperament

In this study, it is proved that tolerance and forgiveness as an internal process have obvious positive effects on mental health. The injured person has experienced some changes in his thoughts, feelings, and behaviors, which can be expressed without words. Tolerance and forgiveness are not connivance of mistakes, abandonment of justice, compromise, or cowardice, but a courageous and intelligent response, which can reduce the harm of offense on us. Psychologists believe that forgiveness means that a person gives up anger, revenge, and resentment after being offended, and even can understand

and sympathize with each other. Forgiveness is a positive interpersonal relationship and belongs to “prosocial behavior” (An, 2018).

Therefore, looking at problems with an inclusive attitude in daily life can not only adjust bad emotions and maintain a peaceful attitude, but also help the harmony of interpersonal relationships and indirectly improve our happiness. Sometimes when you meet people or things unhappy and depressed, you might as well try to transform and accept them. The way to relieve pain is not to resist, but to accept them.

Here are two suggestions for cultivating tolerance and forgiveness.

Firstly, hold back the projection and be responsible for yourself. We project all kinds of positive and negative traits on others, which are actually our own. No matter what the external environment is, it is only a reflection of the heart. You don't have to care too much about the external environment, and you don't rely on others encouragement to motivate change. Let change come from the bottom heart and become the result of living in the moment.

Secondly, accept and tolerate yourself. Let go of self-criticism and guilt, accept your darkness, and allow yourself to have such emotions as fear, sadness, pain, trauma, withdrawal, jealousy, anger, and division. Accept yourself first, then accept others.

4.3 Shortcomings and Prospects

There are still some shortcomings in this study. Firstly, there is an uneven distribution of questionnaires by specialties and regions, which are mainly distributed according to team members socializing networks. However, due to the limitations of members' majors and schools, questionnaires are mostly distributed to those majoring in economics and management as well as engineering. Universities are thus mainly based on team members' schools and financial and economic colleges, which will lead to insufficient comprehensive analysis. Attention should be paid to controlling the distribution of questionnaires in future research. Secondly, the sample size is small. The collection of only 204 valid questionnaires is less for the project research. Thus, some deviations may be caused in the analysis of differences, resulting in discrepancies with the existing literature. The sample size should be expanded in the future. Thirdly, survey methods and tools are relatively simple. Questionnaire survey and literature survey are used in this paper, with SPSS and AMOS as survey tools, triggering certain limitations to the proof of results. Future research can use a variety of methods and tools, and interviews can be added to test the results in depth.

5. Conclusion

The psychological capital and mental health of college students have reached middle and high levels. Gender has a significant impact on college students' psychological capital, while gender, grade, and family status have a significant impact on their mental health. College students' psychological capital has a significant positive impact on overall mental health with a predictive effect on mental health. College students themselves can improve their mental health by cultivating psychological capital.

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